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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,089	01/06/2006	Roland Weigel	5672	8824

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EXAMINER	
DUDA, RINA I	
ART UNIT	**PAPER NUMBER**
2837	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/537,089	WEIGEL, ROLAND	
	Examiner	Art Unit	
	Rina I. Duda	2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 October 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 October 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/30/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 10/30/06 have been fully considered but they are not persuasive. In reference to applicant's argument that the applied prior art does not teach the main winding connected in series to the thermistor, Pfarrer et al clearly describes that when switch 24a is closed current goes from L1 to thermistor 60 through switch 24 and contact 16b to main winding 10. In reference to applicant's argument that current is being limited through the main winding, attention is directed to column 5 lines 41-45 where Pfarrer et al describes the current flow being limited when contact 24a is closed and current is being applied to the system. In reference to applicant's arguments with respect to the 103(a) rejection, applicant has argued that because he does not believe the primary reference anticipates the subject matter of the independent claims, the 103 rejection is improper, the examiner has described again how the primary reference anticipates the subject matter of claims 1 and 11. Therefore, the rejections stand. Furthermore the amendment to claims 7 and 13 do not overcome the 112, second paragraph rejection, claims 7 and 13 are still unclear.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 7 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Due to the removal of all reference characters from

the claims the subject matter of claim 7 is now unclear, claim 7 reads --the control arrangement is designed such that the switch can be operated before the switch--. Furthermore, there is not antecedent basis for "the switches" in claim 6 because claim 1 from which claim 6 depends on does not recite any switches. Additionally, it seems that claim 13 is reciting two separate switches with two different functions, but as presented those functions are unclear.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 1, 4-7, 11, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Pfarrer et al (US patent 4066937)

Claim 1, Pfarrer et al describe a control circuit for a single-phase motor, which includes auxiliary winding 12/14 and main winding 10, wherein said control circuit comprises an NTC thermistor 60 connected in series to the main winding in order to limit the current through the main winding and not the auxiliary winding, the current through the auxiliary winding increases until sufficient motor torque is developed and the motor begins to accelerate see column 5 lines 27-50.

Claims 4 and 5, Pfarrer et al describe switch 24a for removing the NTC thermistor and the starting capacitor after completion of the starting process see column 5 lines 50-54.

Claim 6, Pfarrer et al describes that switch 24a is only ON for a predetermined amount of time see column 5 lines 50-51.

Claim 7, Pfarrer et al describes a series of switch contacts 16A-16B being opened before switch 24a.

Claim 11, Pfarrer et al describe a method for controlling a single-phase motor comprising reducing the current through the main winding by connecting an NTC thermistor in series with the main winding and bridging the thermistor by using switch 24a after starting of the motor see column 5 lines 27-55.

Claim 16, Pfarrer et al describes that the bridging on the thermister occurs after the motor has reached the rated speed.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 2, 3, 8-10,and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pfarrer et al (US Patent 4066937) and Strachan (US Patent 3737752).

Claim 2, the difference between claim 2 and the teachings of Pfarrer et al is that claim 2 recites a starting circuit including a starting capacitor and a PTC thermistor connected to said capacitor. However, Strachan describes a motor control system comprising a starting circuit including a starting capacitor 26 connected in series to a PTC thermistor 20 and an auxiliary winding 10, wherein said starting capacitor produces a phase shift in the auxiliary winding see column 5 lines 1-3.

Therefore, it would have been obvious to one person of ordinary skill in the art at the time of the invention to have a starting circuit as the one taught by Strachan in the motor control circuit of Pfarrer, since said starting circuit provides a suitable mechanism for effectively removing/adding elements from the circuit during starting of the motor until a desired rated speed is reached.

Claim 3, Although Strachan describes a positive temperature coefficient resistor, one can choose to use the negative temperature coefficient resistor taught by Pfarrer et, al, since the resistance of said NTC resistors drops during start up so that the motor torque can be restored and the motor accelerated before motor overheating.

Claims 8 and 14, Strachan describes an operating capacitor 18 connected to the auxiliary winding for producing a phase shift with respect to the main winding. Strachan does not specify the value of the start and operating capacitors. However, Pfarrer et al describe a starting capacitor 26 having a capacitance larger than the capacitance of an operating capacitor 20.

Claims 9 and 15, Pfarrer et al discloses the claimed invention except for the value of the operating capacitor in reference to the starting capacitor. It would have

been obvious to one person having ordinary skill in the art at the time of the invention was made to choose a starting capacitor at least twice as big as the operating capacitor, since it has been held that discovering an optimum value of a result effective variable only involves routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Claim 10, Pfarrer et al discloses the claimed invention except for an NTC thermistor having a cold resistor of 10 to 30 ohms. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to choose an NTC thermistor having a value between 10-30 ohms, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable range involves only routine skill in the art. In re Aller, 105 USPQ 233.

Claim 12, Strachan describes a motor control system comprising a starting circuit including a starting capacitor 26 connected in series to a PTC thermistor 20 and an auxiliary winding 10, wherein said starting capacitor produces a phase shift in the auxiliary winding see column 5 lines 1-3. Furthermore, Pfarrer et al describes switching the starting capacitor 26 with resistor 28.

Claim 13, Pfarrer et al describes disconnecting the starting capacitor from the circuit using switches 24a and 16A-16C.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rina I. Duda whose telephone number is 571-272-2062.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on 571-272-1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RD

RINA DUDA
PRIMARY EXAMINER